

CURRENT LITERATURE

BOOK REVIEWS

Soil conditions and plant growth

The rapid advancement of our knowledge of the soil as related to plant production is reflected by the necessity for a new revision of RUSSELL'S *Soil conditions and plant growth*.¹ The fourth edition appears in a slightly different size and binding, marking its separation from the series of *Monographs on Biochemistry* edited by PLIMMER and HOPKINS, and the inauguration of a new series, *The Rothamsted Monographs on Agricultural Science*, edited by E. J. RUSSELL. Students of soil problems and plant physiology will welcome this departure, and await with keen interest the other five volumes announced as in preparation.

The present volume covers the entire field, and the others are to deal with more restricted phases, in more complete and more critical fashion than would be possible without undue expansion of the original work. The chapter headings remain about as they were. Chapter ii becomes "Soil conditions affecting plant growth" instead of "The requirements of plants"; and a second appendix is added, which shows in tabular form the amounts of minerals absorbed from the soil by agricultural crops in England.

Nearly every chapter shows enlargement, especially those which deal with the soil conditions affecting plant growth, the biological conditions of the soil, and the relation between the microorganic population of the soil and plant growth. The literature citations are increased from 18 to 28 pages, and the whole work from 240 to 355 pages of text. More figures have been added, with a frontispiece of BOUSSINGAULT, the founder of modern agricultural chemistry, which adds to the attractiveness of the volume.

The literature mentioned by WALSTER² in the review of the third edition has nearly all been given consideration in the revision, and the discussion is brought up to date as nearly as possible. The book is an excellent general introduction to the field, and will be indispensable to students of plant physiology, ecology, and agriculture. With this new departure in publication of monographs, the Rothamsted Station, already justly famous for its splendid contributions to agricultural practice, is certain to extend very greatly its influence as a center of scientific investigation.—C. A. SHULL.

¹ RUSSELL, E. J., *Soil conditions and plant growth*. 4th ed. pp. xii+406. *figs.* 32. New York: Longmans Green & Co. 1921.

² BOT. GAZ. 67:171-173. 1919.